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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,856	05/04/2001	Masafumi Takiguchi	450100-03207	9840

20999 7590 11/30/2005

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EXAMINER

TRAN, THAI Q

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/849,856	Applicant(s) TAKIGUCHI ET AL.	
	Examiner Thai Tran	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed Sept. 12, 2005 have been fully considered but they are not persuasive.

In re pages 9-10, applicants argues that the combination of Seki and Shim does not disclose or suggest phase-locked loop means responsive to the playback signal to control the adaptive equalizing circuit when phase lock with the playback signal is performed because, in Shim, the waveform equalizer uses the clock signal produced by the phase locked loop 15 and synchronized with the RF signal (Fig. 1), similarly, in Figure 2 of Shim, PLL 23 generates the clock signal PLCK that is supplied to the ADC 21 and other circuits, and, in Shim, the PLL merely generates a clock signal – the PLL does not control the waveform equalizer, nor does it control the changing of coefficients.

In response, the examiner respectfully disagrees. Shim discloses in col. 1, lines 17-38 that "The PLL 15 receives the binarization signal and generates a clock signal PLCK synchronized with the RF signal. **The clock signal PLCK is supplied to the ADC 11, a waveform equalizer 12 and a Viterbi decoder 13.** The ADC 11, a waveform equalizer 12 and a Viterbi decoder 13. The ADC 11 converts the input analog RF signal into a digital RF signal and outputs the digital RF signal to the waveform equalizer 12. The waveform equalizer 12 receives the digital RF signal into a form which is appropriate for the Viterbi decoder 13". From the above passage, since the PLCK generated by the PLL 15 is supplied to the ADC 11, a waveform equalizer 12 and a Viterbi decoder 13, the waveform equalizer 12 is controlled by the PLCK generated by

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the PLL 15. Thus, Shim does indeed disclose the claimed "phase-locked loop means responsive to said playback signal to control said adaptive equalizing circuit when phase lock with said playback signal is performed".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seki et al (US 5,450,253) in view of Shim et al (US 6,307,822 B1).

Regarding claim 1, Seki et al discloses, as stated in the last Office Action, a playback apparatus for extracting a playback signal from a recording medium without performing tracking control (Fig. 4 and col. 3, lines 21-29), said playback apparatus comprising:

an adaptive equalizing circuit (filter 14 of Fig. 4, col. 5, lines 31-33) for performing equalization of said playback signal; and

detection means (an envelope detector 19 of Fig. 4, from col. 8, line 59 to col. 9, line 13) for determining an envelope value of said playback signal, wherein said adaptive equalizing circuit is controlled in accordance with an envelope value from said detection means. However, Seki et al does not specifically disclose the claimed phase-locked loop means responsive to said playback signal to control said adaptive equalizing circuit when phase lock with said playback signal is performed.

Shim et al teaches that the waveform equalizer 12 and the Viterbi decoder 13 are controlled by the phase locked loop 15 so that the damaged signal reproduced from the recording medium can be restored (col. 1, lines 17-38).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the PLL as taught by Shim et al into Seki et al's system in order to increase the quality of the reproduced video signal by restoring the damaged reproduced video signal.

Regarding claim 2, Seki et al also discloses the claimed wherein said adaptive equalizing circuit (Fig. 2) comprises:

a plurality of unit delay means (delay elements 21a, 21b, 21c, and 21d of Fig. 2, col. 6, lines 42-45) for delaying said playback signal in sequence;

a plurality of weighting means (coefficient multipliers 22a, 22b, 22c, 22d, and 22e of Fig. 2, col. 6, lines 45-49) for performing weighting on each of the delay signals; and

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additional means (adder 23a of Fig. 2, col. 6, lines 49-56) for adding together the weighted signals, and

wherein each of the weighting signals of said plurality of weighting means is changed in accordance with said playback signal, and when the envelope value of said playback signal is more than or equal to a predetermined value, the coefficients in said weighting means are changed (an envelope detector 19 of Fig. 4, from col. 8, line 59 to col. 9, line 13).

Regarding claim 3, Shim also discloses the claimed wherein said phase-locked loop means is used for forming a signal locked to an arbitrary phase of said playback signal, such that when phase lock has been performed by said phase-locked loop means, the coefficients in said weighting means are changed (col. 1, lines 17-38).

Claim 4 is rejected for the same reasons as discussed in claim 2 above.

Claim 5 is rejected for the same reasons as discussed in claim 3 above.

Method claims 6-8 are rejected for the same reasons as discussed in apparatus claims 1-3 above.

Regarding claim 9, Seki et al discloses the claimed wherein said phase-locked loop means extracts a data clock from said playback signal only when the envelope value of said playback signal is at least equal to a predetermined value (an envelope detector 19 of Fig. 4, from col. 8, line 59 to col. 9, line 13).

Claim 10 is rejected for the same reasons as discussed in claim 9 above.

Claim 11 is rejected for the same reasons as discussed in claim 9 above.

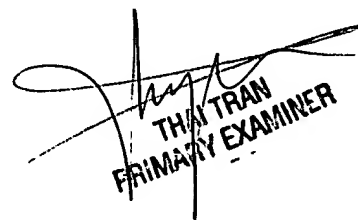
4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (571) 272-7382. The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


THAI TRAN
PRIMARY EXAMINER